



— DES-1218R

— DES-1226R

DES-1218R switch (top) with 16 10/100Mbps ports, DES-1226R switch (bottom) with 24 10/100Mbps ports. Optional modules providing 2 Gigabit fiber ports are shown inserted in the open slots on the right-hand side.

10/100Mbps Smart Switch With Gigabit Options

These unmanaged switches are designed to enhance a network's performance, providing a large number of 10/100Mbps ports, plus the option to install Gigabit ports for power server deployment. Powerful and easy to use, these devices present an effective way to meet demands for increasing network loads in environments with mixed bandwidth requirements.

16 or 24 10/100Mbps Ports

Each switch comes with 16 or 24 ports 10/100Mbps ports designed for flexible connection and Ethernet/Fast Ethernet integration. These intelligent ports detect the network speed and auto-negotiate between 100BASE-TX and 10BASE-T, as well as full- and half-duplex. The 10/100Mbps ports are ideal for segmenting the network into small, connected sub networks for superior performance, enabling the most demanding multimedia and imaging applications over the network.

Optional Gigabit Fiber Ports

These ports come as optional modules, they can be installed in the open slot on the front of the switches. Available for selection are 1000BASE-SX ports and GBIC ports (for flexible fiber cable types). The Gigabit fiber ports are capable of handling very large amounts of data in a secure topology linking to a backbone or high-power servers.

Optional Gigabit Copper Ports

These ports also come as optional modules, they support 1000BASE-T standards. Connection is through the twisted-pair copper wire cables using RJ-45 connectors. These ports support full duplex and flow control. At 2000Mbps full-duplex, these ports are suitable for connection to high speed departmental servers.

High-bandwidth Port Trunking

Multiple ports can be combined into a high-bandwidth, full-duplex trunk for switch-to-switch or switch-to-server connection. Port trunking gives users the high-speed load-sharing connection.

VLANs for Performance and Security

The switches support up to multiple port-based VLANs to extend the broadcast domain, segment network traffic and improve performance and manageability. This allows adds, moves and changes to be easily carried out. VLAN also provides security by limiting broadcast domains, traffic in different segments and subnets can be separated for maximum throughput and secure networking.

Plug-and-Play with Easy Configuration

The switches provide plug-and-play connection to mixed bandwidth workgroups while letting the administrator easily set up port trunking and VLAN groups via a built-in console port.

QoS With Traffic Priority Queues

IEEE 802.1P Traffic Priority Queuing allows you to queue critical and non-critical traffic to achieve the best-effort speeds. This capability permits you the run applications such as Voice over IP (VoIP), video-conference and multimedia.

Features

- 16 or 24 10/100Mbps ports per switch
- Optional 1000BASE-SX or GBIC fiber Gigabit ports
- Optional 1000Mbps copper ports
- Store-and-forward switching scheme Full/half-duplex support
- Port trunk support for 10/100Mbps and Gigabit ports
- Port-based VLANs
- IEEE 802.3x flow control
- IEEE 802.1P Traffic Priority support for multimedia applications
- Easy configuration through console port

DES-1216R/DES-1226R

Technical Specifications

10/100Mbps Smart Switch

General

Standards

- IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)
- IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)
- IEEE 802.3z 1000BASE-SX Gigabit Ethernet (fiber)
- IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)
- ANSI/IEEE Std 802.3 NWay auto-negotiation
- IEEE 802.3x full-duplex flow control
- IEEE 802.1P Priority Queue
- Port-based VLAN

Protocol

CSMA/CD

Data Transfer Rates

- Ethernet:
 - 10Mbps (half duplex)
 - 20Mbps (full duplex)
- Fast Ethernet:
 - 100Mbps (half duplex)
 - 200Mbps (full duplex)
- Gigabit Ethernet:
 - 2000Mbps (full duplex)

Topology

Star

Network Cables

- 10BASE-T:
 - 2-pair UTP Cat. 3, 4, 5 (100 m)
 - EIA/TIA-586 100-ohm STP (100 m)
- 100BASE-TX:
 - UTP Cat. 5 (100m max.)
 - EIA/TIA-568 100-ohm STP (100m max.)
- 1000BASE-T:
 - UTP Cat. 5 or Cat. 5e (100m max.)
 - EIA/TIA-568 100-ohm STP (100m max.)
- 1000BASE-SX:
 - 62.5/125um multimode fiber-optics (275m max.)
 - 50/125um multimode fiber-optics (550m max.)
- 1000BASE-LX:
 - 62.5/125um multimode fiber-optics (550m max.)
 - 50/125um multimode fiber-optics (550m max.)
 - 9um single-mode fiber-optics (5km max.)
- Long Haul
 - Single-mode fiber-optics (70km max.)

Full/half Duplex

- Full/half duplex for 10/100Mbps ports
- Full duplex only for 1000Mbps ports

Flow Control

- IEEE 802.3x compliant flow control for full duplex
- Back pressure flow control for half duplex

Media Interface Exchange

MDI-X switch button for 1 10/100Mbps port

Twisted-pair Rx Reverse Polarity

- Auto-correction

LED Indicators

- Per 10/100Mbps port: 100Mbps speed, Link/Act
- Per Gigabit port: Link, Act
- Per device: Power

Performance

Transmission Method

Store-and-forward

Filtering Address Table

32K entries per device

MAC Address Learning

- Automatic update
- Max Age: user-configurable (1 - 5 minutes)

Packet Filtering/Forwarding Rates (half duplex)

- Ethernet: 14,880 pps per port
- Fast Ethernet: 148,810 pps per port
- Gigabit Ethernet: 1,488,100 pps per port

Priority Queue

- 802.1P support
- 4 priority queues

RAM Buffer

- 2MB per 8 10/100Mbps ports
- 2MB per 1000Mbps port

Number of Ports per Trunk

- Up to 4 10/100Mbps ports (800Mbps at full duplex)
- Up to 2 1000Mbps ports (4000Mbps at full duplex)

Console Port

RS-232 DB-9

Physical & Environmental

AC Input

100 - 240 VAC, 50/60 Hz
Internal universal power supply

Power Consumption

- DES-1218R: 21 watts (max.)
- DES-1226R: 26 watts (max.)

Ventilation

40 x 40 mm DC fan x 2

Operating Temperature

0° - 50° C (32° - 122°F)

Storage Temperature

-25° - 55° C (-13° - 131°F)

Humidity

5% - 95% non-condensing

Dimensions

441 x 207 x 44 mm (17.36 x 8.15 x 1.73 inches)
19-inch rack-mount width, 1 U height

Weight

- DES-1218R: 2.6 kg (5.73 lb.)
- DES-1226R: 2.7 kg (5.95 lb.)

Emission (EMI)

- FCC Class A
- CE Class A
- C-Tick
- VCCI Class A
- BSMI Class A

Safety

- UL/CUL (UL1950/CSA950)
- TUV/GS (En60950)



Ordering Information

10/100Mbps Unmanaged Stand-alone Switch

DES-1218R 16 RJ-45 10BASE-T/100BASE-TX ports
DES-1226R 24 RJ-45 10BASE-T/100BASE-TX ports

Optional Modules

DES-132G 2 SC 1000BASE-SX Gigabit fiber ports
DES-132GL 2 SC 1000BASE-LX Gigabit fiber ports
DES-132T 2 RJ-45 100BASE-TX/1000BASE-T Gigabit copper ports
DES-132GB 2 GBIC ports
DES-131F 1 SC 100BASE-FX fiber port (2km)
DES-132F 2 SC 100BASE-FX fiber ports (2km)
DES-131FL 1 SC 100BASE-FX fiber port (15km)
DES-132FL 2 SC 100BASE-FX fiber port (15km)

Optional Modules for GBIC Ports

DGS-701 For 1000BASE-SX, Wave length 850m, Fiber type 50um/125um 500 MHz-km multimode fiber, distance 550m max.
DGS-702 For 1000BASE-LX, Wave length 1310m, Fiber type 9um single-mode fiber, distance 5km max.

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